

Reflectivity measurement - REFERENCE mirror (before, after WHT primary alumin

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|--------------------------|-------------------------------------|-----|
| Equipment: | uscan reflectometer | |
| Mirror: | Reference mirror | |
| Person: | Tibor Agocs | |
| Date: | 29/01/2007-before, 30/01/2007-after | |
| Lambda (micron): | 0.67 | |
| Incident angle (degree): | 25 | |
| BW (Bandwidth) limits: | 1 | 0.1 |

BEFORE

| No# | BSDF - 0°,0° detector position | BSDF - 50°,180° detector position | reflectivity | rms (Ångstrom) | time | date |
|---------------------|---|--|--------------|-------------------|----------|------------|
| 1 | 2.50E-03 | 1.54E-03 | 0.942 | 34.3 | 15:16:17 | 01-30-2007 |
| 2 | 3.14E-03 | 1.45E-03 | 0.935 | 39.1 | 15:16:23 | 01-30-2007 |
| 3 | 3.32E-03 | 1.57E-03 | 0.935 | 40.1 | 15:16:28 | 01-30-2007 |
| 4 | 4.84E-03 | 1.93E-03 | 0.955 | 48.5 | 15:16:40 | 01-30-2007 |
| 5 | 4.81E-03 | 1.96E-03 | 0.961 | 48.1 | 15:16:45 | 01-30-2007 |
| 6 | 4.92E-03 | 2.00E-03 | 0.958 | 48.8 | 15:16:52 | 01-30-2007 |
| average | 3.922E-03 | 1.738E-03 | 0.948 | 43.150 | | |
| standard dev | 1.061E-03 | 2.477E-04 | 0.012 | 6.149 | | |

AFTER

| No# | BSDF - 0°,0° detector position | BSDF - 50°,180° detector position | reflectivity | rms (Ångstrom) | time | date |
|---------------------|---|--|--------------|-------------------|----------|------------|
| 1 | 2.04E-03 | 1.03E-03 | 0.966 | 30.8 | 16:45:55 | 01-29-2007 |
| 2 | 1.32E-03 | 8.60E-04 | 0.96 | 24.6 | 16:46:04 | 01-29-2007 |
| 3 | 1.45E-03 | 1.10E-03 | 0.939 | 26.1 | 16:46:10 | 01-29-2007 |
| 4 | 4.72E-03 | 2.41E-03 | 0.973 | 46.7 | 16:46:19 | 01-29-2007 |
| 5 | 2.02E-03 | 1.15E-03 | 0.972 | 30.4 | 16:46:28 | 01-29-2007 |
| 6 | 2.00E-03 | 1.14E-03 | 0.972 | 30.3 | 16:46:33 | 01-29-2007 |
| 7 | 1.34E-03 | 8.43E-04 | 0.942 | 25 | 16:46:43 | 01-29-2007 |
| 8 | 1.50E-03 | 8.81E-04 | 0.94 | 26.6 | 16:46:48 | 01-29-2007 |
| 9 | 1.59E-03 | 8.88E-04 | 0.94 | 27.4 | 16:46:53 | 01-29-2007 |
| average | 1.996E-03 | 1.144E-03 | 0.956 | 29.767 | | |
| standard dev | 1.061E-03 | 4.895E-04 | 0.015 | 6.773 | | |

Notes:

RMS - Root Mean Square surface roughness in Angstrom,

BSDF - Bidirectional scatter distribution function, it is equal to the scattered power per unit solid angle normalized by the incident power and $\cos\theta$

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